

V&V Reference Report

L2 ASCDS Version : 8.4.5

Observation 54387 - L2 Version 1
Chandra X-Ray Center

L2 Processing Date : Aug 22 2012

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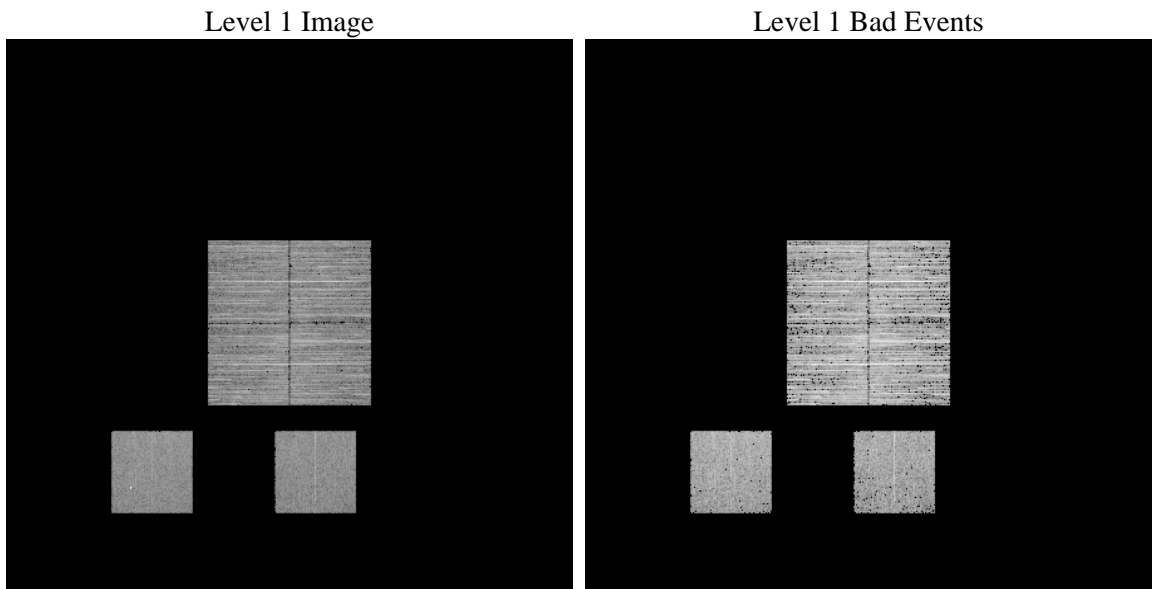
1 Front

| | | |
|----------|---|---|
| seq_num | | Sequence number |
| obs_id | 54387 | Observation id |
| title | ACIS-012357 diagnostics | Proposal title |
| observer | CHANDRA engineering request/realtime commanding | Principal investig |
| object | | Source name |
| dtcycle | 0 | |
| cycle | P | events from which exps? Prim/Second/Both |
| ra_targ | 0.0 | Observer's specified target RA [deg] |
| dec_targ | 0.0 | Observer's specified target Dec [deg] |
| ra_nom | 353.00838737991 | Nominal RA [deg] |
| dec_nom | -35.267130765109 | Nominal Dec [deg] |
| roll_nom | 45.051507528525 | Nominal Roll [deg] |
| revision | 1 | Processing version of data |
| ontime | 3272.5351725221 | Sum of GTIs [s] |
| livetime | 3231.0963616835 | Livetime [s] |
| ontime0 | 3152.5757703781 | Sum of GTIs [s] |
| ontime1 | 3149.2936412692 | Sum of GTIs [s] |
| ontime2 | 3139.5304458737 | Sum of GTIs [s] |
| ontime3 | 3155.8988614082 | Sum of GTIs [s] |
| ontime5 | 3272.3710125089 | Sum of GTIs [s] |
| ontime7 | 3272.5351725221 | Sum of GTIs [s] |
| l2events | 103341 | Number of level 2 events |

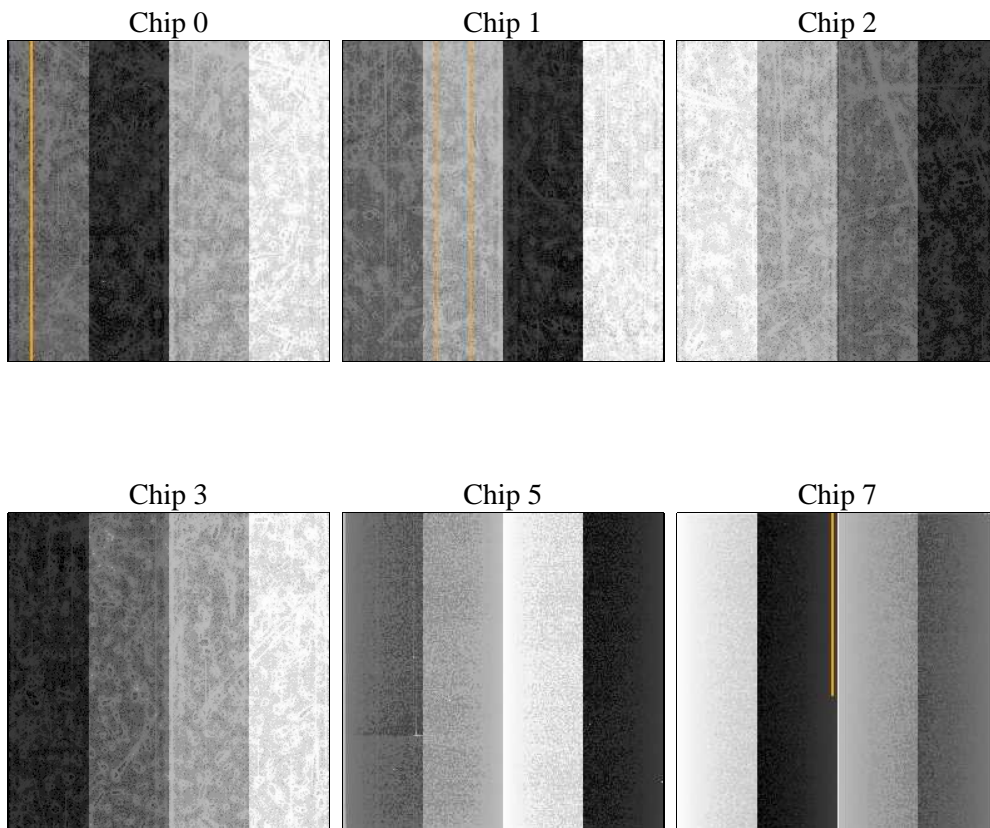
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

| | | | | | |
|----------|---------------------|--------------------------------|----------------|-----------------|---|
| obi_num | 0 | Obi number | sched_exp_time | 0.0 | [s] Scheduled observation exposure time |
| ascdsver | 8.4.5 | Processing system revision | ontime | 3272.5351725221 | Sum of GTIs [s] |
| caldbver | 4.5.1.1 | | ontime0 | 3152.5757703781 | Sum of GTIs [s] |
| date | 2012-08-22T20:58:40 | Date and time of file creation | ontime1 | 3149.2936412692 | Sum of GTIs [s] |
| revision | 1 | Processing version of data | ontime2 | 3139.5304458737 | Sum of GTIs [s] |
| | | | ontime3 | 3155.8988614082 | Sum of GTIs [s] |
| | | | ontime5 | 3272.3710125089 | Sum of GTIs [s] |
| | | | ontime7 | 3272.5351725221 | Sum of GTIs [s] |
| | | | l1events | 352694 | Number of level 1 events |

2.1.4 Events

| | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 5 | ccd 7 | | ccd 0 | ccd 1 | ccd 2 | ccd 3 | ccd 5 | ccd 7 |
|-----------------|-------|-------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|-------|-------|
| level 1 events | 59148 | 60989 | 62506 | 61677 | 55802 | 52572 | grade 0 events | 7567 | 7246 | 7633 | 7617 | 3071 | 3952 |
| rejected events | 44460 | 46707 | 48081 | 47352 | 29439 | 27127 | | 12% | 11% | 12% | 12% | 5% | 7% |
| rejected % | 75% | 76% | 76% | 76% | 52% | 51% | grade 1 events | 37 | 42 | 38 | 36 | 53 | 40 |
| | | | | | | | | 0% | 0% | 0% | 0% | 0% | 0% |
| | | | | | | | grade 2 events | 2887 | 2914 | 2744 | 2640 | 10011 | 6346 |
| | | | | | | | | 4% | 4% | 4% | 4% | 17% | 12% |
| | | | | | | | grade 3 events | 1026 | 921 | 1030 | 1000 | 1077 | 2096 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 4 events | 999 | 929 | 925 | 987 | 904 | 2101 |
| | | | | | | | | 1% | 1% | 1% | 1% | 1% | 3% |
| | | | | | | | grade 5 events | 1073 | 1080 | 1073 | 1204 | 2348 | 2939 |
| | | | | | | | | 1% | 1% | 1% | 1% | 4% | 5% |
| | | | | | | | grade 6 events | 2274 | 2341 | 2167 | 2156 | 11440 | 11087 |
| | | | | | | | | 3% | 3% | 3% | 3% | 20% | 21% |
| | | | | | | | grade 7 events | 43285 | 45516 | 46896 | 46037 | 26898 | 24011 |
| | | | | | | | | 73% | 74% | 75% | 74% | 48% | 45% |

2.2 Compared Parameters

| Parameter | Planned | Actual |
|-----------------------------------|---------------------|----------------------|
| Instrument | ACIS | ACIS |
| Detector | ACIS-012357 | ACIS-012357 |
| Grating | NONE | NONE |
| Data mode | FAINT | FAINT |
| Observation mode | SECONDARY | SECONDARY |
| [deg] Pointing RA | 0 | 353.0083873799073 |
| [deg] Pointing Dec | 0 | -35.26713076510892 |
| [deg] Pointing Roll | 0.0 | 45.05150752852465 |
| [mm] SIM focus pos | -1.429586 | -1.428180813131781 |
| [mm] SIM defocus | 0.1037507710433287 | 0.1051558262725154 |
| [mm] SIM translation stage pos | 250.455976 | 250.466033080201 |
| [mm] SIM translation stage offset | 0 | -0.01005468664627074 |
| [s] Observation start time (MET) | 461993083.116901 | 461993082.0919 |
| Observation start date | 2012-08-22T03:24:43 | 2012-08-22T03:24:42 |
| [s] Observation end time (MET) | 461999602.11725 | 461999601.09225 |
| Observation end date | 2012-08-22T05:13:22 | 2012-08-22T05:13:21 |
| Read mode | TIMED | TIMED |

| Parameter | Planned | Actual |
|---------------------------------------|-----------|---------|
| Obspar format version number | 7 | 7 |
| Obspar file type | PREDICTED | ACTUAL |
| Obspar update status | NONE | UPDATED |
| Number of optional ACIS chips dropped | 0 | 0 |
| On-chip summing requested | N | N |
| Subarray requested | NONE | NONE |
| Alternating exposures requested | N | N |
| [s] Primary exposure time | 3.2 | 3.2 |

2.3 Star Slots

2.4 FID Slots

A Summary

A.1 Status

| | |
|----------------------------|-----------------|
| V&V Scientist | Joy Nichols |
| V&V Date (YYYY-MM-DD) | 2012.08.23 |
| V&V Edition | 1 |
| V&V Disposition and Status | OK |
| V&V Charge Time | 3.2725351725221 |

A.2 Comments

There is a discontinuity in the THR_PIX value between about 2.9 and 3.0 ksec into the observation. The THR_PIX value drops by about 50% during this period. This time period is not included in the GTI for the FI chips, but appears to be included for the BI chips.